

THOMAS KRAHN ET AL.  
USSN 09/966,137  
REPLY TO THE OFFICE ACTION DATED NOVEMBER 4, 2004  
AMENDMENT OF APRIL 4, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.-6. (Canceled)

1.  
7. (Currently Amended) A composition of matter comprising:

- a) a reaction vessel having a transparent support at the bottom of said reaction vessel;
- b) a coherent layer of fluorescently labeled biological cells applied to the transparent support;
- c) a solution comprising a masking dye in the reaction vessel, the masking dye absorbing at least one of:
  - i) the excitation energy of any fluorescent dye in the solution;
  - and

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ii) the emission light of any fluorescent dye in the  
solution; and

d) ~~optionally~~ a fluorescent dye dissolved in the solution.

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~~8.~~ (Previously Presented) The A composition of matter according to claim 7  
comprising:

a) a reaction vessel having a transparent support at the bottom of  
said reaction vessel;

b) a coherent layer of fluorescently labeled biological cells applied  
to the transparent support;

c) a solution comprising a masking dye in the reaction vessel,  
wherein the masking dye is water-soluble and has no cytotoxic side  
effects, the masking dye absorbing at least one of:

i) the excitation energy of any fluorescent dye in the  
solution; and

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ii) the emission light of any fluorescent dye in the  
solution; and

d) optionally a fluorescent dye in the solution.

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9. (Previously Presented) A composition of matter comprising:

- a) a reaction vessel having a transparent support at the bottom of said reaction vessel;
- b) a coherent layer of fluorescently labeled biological cells applied to the transparent support;
- c) a separating layer applied to the coherent layer of fluorescently labeled biological cells, the separating layer being permeable to a solution comprising a fluorescent dye, and the separating layer absorbing, reflecting or both absorbing and reflecting at least one of:

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- i) the excitation energy of the fluorescent dye in the solution;  
and
- ii) the emission light of the fluorescent dye in the solution; and
- d) optionally a solution comprising a fluorescent dye in the reaction vessel.

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10. (Previously Presented) The composition of matter according to claim 9, wherein the separating layer comprises a layer of polymeric latex beads.

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11. (Previously Presented) The composition of matter according to claim 10, wherein the polymeric latex beads are dyed with a masking dye.

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12. (Previously Presented) The composition of matter according to claim 11, wherein the masking dye dyed on the polymeric latex beads is water-soluble and has no cytotoxic side effects.

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13. (Previously Presented) A composition of matter comprising:

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- a) a reaction vessel having a transparent support at the bottom of said reaction vessel;
- b) a coherent layer of fluorescently labeled biological cells applied to the transparent support;
- c) a solution comprising a masking dye in the reaction vessel, the masking dye absorbing at least one of:
  - i) the excitation energy of any fluorescent dye in the solution; and
  - ii) the emission light of any fluorescent dye in the solution; and
- d) a separating layer applied to the coherent layer of fluorescently labeled biological cells, the separating layer being permeable to a solution comprising a fluorescent dye, and the separating layer

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absorbing, reflecting or both absorbing and reflecting at least one  
of:

i) the excitation energy of the fluorescent dye in the solution;  
and

ii) the emission light of the fluorescent dye in the solution; and

e) optionally a fluorescent dye in the solution.

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14. (Previously Presented) The composition of matter according to claim 13, wherein  
the masking dye is water-soluble and has no cytotoxic side effects.

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15. (Previously Presented) The composition of matter according to claim 13, wherein  
the separating layer comprises a layer of polymeric latex beads.

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16. (Previously Presented) The composition of matter according to claim 15, wherein  
the polymeric latex beads are dyed with a masking dye.

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17. (Previously Presented) The composition of matter according to claim 16, wherein the masking dye dyed on the polymeric latex beads is water-soluble and has no cytotoxic side effects.

18.-21. (Canceled)

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22. (Previously Presented) A composition of matter comprising:

- a) a reaction vessel having a transparent support at the bottom of said reaction vessel;
- b) a layer of receptors specific for a fluorescent or luminescent ligand applied to or deposited on the transparent support; and
- c) a solution comprising a masking dye in the reaction vessel, the masking dye masking the fluorescence or luminescence of any unbound fluorescent or luminescent ligand in the solution; and
- d) unbound fluorescent or luminescent ligand in the solution.

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23. (Currently Amended) The A composition of matter ~~according to claim 22~~

comprising:

a) a reaction vessel having a transparent support at the bottom of  
said reaction vessel;

b) a layer of receptors specific for a fluorescent or luminescent  
ligand applied to or deposited on the transparent support; and

c) a solution comprising a masking dye in the reaction vessel,  
wherein the masking dye is water-soluble and has no cytotoxic side  
effects, the masking dye masking the fluorescence or  
luminescence of any unbound fluorescent or luminescent  
ligand in the solution.

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24. (Previously Presented) A composition of matter comprising:

a) a reaction vessel having a transparent support at the bottom of said  
reaction vessel;

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- b) a layer of receptors specific for a fluorescent or luminescent ligand applied to or deposited on the transparent support; and
- c) a separating layer applied to the layer of receptors specific for a fluorescent or luminescent ligand, the separating layer being permeable to a solution comprising the fluorescent or luminescent ligand, and the separating layer absorbing, reflecting or both absorbing and reflecting at least one of:
  - i) the excitation energy of any unbound fluorescent or luminescent ligand remaining in the solution comprising the fluorescent or luminescent ligand; and
  - ii) the fluorescence or luminescence of any unbound fluorescent or luminescent ligand remaining in the solution comprising the fluorescent or luminescent ligand.

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25. (Previously Presented) The composition of matter according to claim 24, wherein the separating layer comprises a layer of polymeric latex beads.

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<sup>16</sup>  
~~26~~. (Previously Presented) The composition of matter according to claim 25, wherein the polymeric latex beads are dyed with a masking dye.

<sup>17</sup>  
~~27~~. (Previously Presented) The composition of matter according to claim 26, wherein the masking dye dyed on the polymeric latex beads is water-soluble and has no cytotoxic side effects.

<sup>18</sup>  
~~28~~. (Previously Presented) A composition of matter comprising:

- a) a reaction vessel having a transparent support at the bottom of said reaction vessel;
- b) a layer of receptors specific for a fluorescent or luminescent ligand applied to or deposited on the transparent support;
- c) a solution comprising a masking dye in the reaction vessel, the masking dye masking the fluorescence or luminescence of any unbound fluorescent or luminescent ligand in the solution; and

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- d) a separating layer applied to the layer of receptors specific for a fluorescent or luminescent ligand, the separating layer being permeable to a solution comprising the fluorescent or luminescent ligand, and the separating layer absorbing, reflecting or both absorbing and reflecting at least one of:
  - i) the excitation energy of any unbound fluorescent or luminescent ligand remaining in the solution comprising the fluorescent or luminescent ligand; and
  - ii) the fluorescence or luminescence of any unbound fluorescent or luminescent ligand remaining in the solution comprising the fluorescent or luminescent ligand.

<sup>19</sup>  
29. (Previously Presented) The composition of matter according to claim 28, wherein the masking dye is water-soluble and has no cytotoxic side effects.

<sup>20</sup>  
30. (Previously Presented) The composition of matter according to claim 28, wherein the separating layer comprises a layer of polymeric latex beads.

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~~31~~. (Previously Presented) The composition of matter according to claim 30, wherein the polymeric latex beads are dyed with a masking dye.

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~~32~~. (Previously Presented) The composition of matter according to claim 31, wherein the masking dye dyed on the polymeric latex beads is water-soluble and has no cytotoxic side effects.

33.-43. (Canceled)